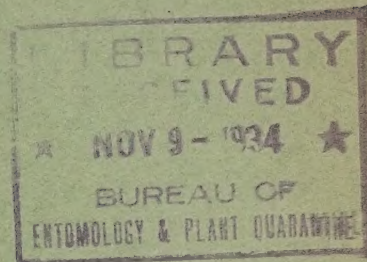


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UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE
INSECTICIDE DIVISION

Patent List No. 18



A LIST OF
UNITED STATES PATENTS
Issued from 1917 to 1933 inclusive
relating to
BOLL WEEVIL MACHINES
Compiled by
R. C. Roark

Washington, D.C.
October 1934

A LIST OF UNITED STATES PATENTS ISSUED FROM 1917 TO 1933, INCLUSIVE,
RELATING TO BOLL WEEVIL MACHINES

Compiled by

R. C. Roark
Insecticide Division, Bureau of Entomology and Plant Quarantine.

The devices mentioned in this list are similar to those mentioned in Insecticide Division Patent List No. 12 entitled "Machines for Removing Insects from Plants," but differ sufficiently from the latter to be included in a separate sub-class (called "Insect Catchers"), by the United States Patent Office.

These 115 devices include many different types of apparatus, horse drawn and operator-carried, for knocking, shaking or brushing boll-weevils from plants. In general the insects are caught in a trough or pan containing an insecticide such as crude oil, kerosene, gasoline, or tar, but in some machines the insects are collected in a receptacle containing no insecticide. Certain machines bear burning sulphur from the destruction of insects on plants. Three machines are designed for catching grasshoppers, and three are for knocking potato bugs from plants.

Every effort has been made by the compiler to make this list of patents complete and no discrimination is intended against any patent mention of which is inadvertently omitted.

The Department of Agriculture assumes no responsibility for the merits or workableness of any of the patents, nor does it recommend any of the inventions listed.

1,218,188 (Mar. 6, 1917; appl. Oct. 5, 1916). INSECT DESTROYER. Peter Kolb, Fort Deposit, Ala. - This machine knocks boll weevils from cotton plants into hoppers where they are burned by gasoline burners.

1,222,706 (Apr. 17, 1917; appl. Sept. 8, 1916). INSECT DESTROYER. Robert L. Wood, Fort Deposit, Ala. - This machine, which may be carried on a cultivator, shakes boll weevils from plants into containers of poisonous solution.

1,232,679 (July 10, 1917; appl. Jan. 22, 1917). BOLL WEEVIL CATCHER. Robert L. Grant, Grady, Okla. - This machine which may be attached to and drawn behind a cultivator knocks weevils from plants by means of hanging chains into V-shaped troughs.

1,235,473 (July 31, 1917; appl. Dec. 1, 1916). BOLL WEEVIL DESTROYER. William L. Henry and Irven E. Calloway, Plochville, Tex. - As this machine is drawn astraddle a row of cotton plants, beaters shake insects into receptacles containing crude oil or a mixture of kerosene and water or other insecticide.

1,239,799 (Sept. 11, 1917; appl. May 21, 1917). EXTERMINATOR. Hubert Longauer, Lyndon Station, Wis. - This machine knocks insects, such as potato bugs, from growing plants onto plates where they are crushed.

1,240,736 (Sept. 18, 1917; appl. Mar. 27, 1917). DEVICE FOR CATCHING BOLL WEEVILS. George E. Kyser, Birmingham, and Jimmie U. Till, McWilliams, Ala. - Till Manufacturing Co., Birmingham, Ala. - This device which is carried by the operator knocks boll weevils from young plants into troughs containing crude oil.

1,241,012 (Sept. 25, 1917; appl. Jan. 17, 1917). BOLL WEEVIL DESTROYER. Samuel J. Patton, Helena, Ala. - This machine as it is drawn along a row of plants brushes boll-weevils into pans containing tar or pitch which in cold weather is kept soft by oil burners.

1,241,727 (Oct. 2, 1917; appl. May 23, 1917). BOLL WEEVIL DESTROYER. William W. Fuller, West Point, Ga. - This machine brushes boll weevils, potato bugs or other insects from plants into a pan containing kerosene.

1,243,888 (Oct. 23, 1917; appl. Nov. 14, 1916). INSECT COLLECTING ATTACHMENT. Benjamin F. Stebbins, and Blake W. Forehand, Mullin, Tex. - This attachment for cultivators shakes boll weevils from plants into troughs.

1,244,547 (Oct. 30, 1917; appl. May 31, 1917). BOLL WEEVIL TRAP. George H. Russell, Florence, Ala. - This device is designed to straddle a row of plants as it is carried by the operator or a horse drawn carrier and to knock boll weevils into troughs containing insecticides.

1,244,895 (Oct. 30, 1917; appl. Jan. 29, 1917). BOLL WEEVIL CATCHER. Joe Richards, Timpson, Tex. - This machine brushes boll weevils into a pan containing oil.

1,245,706 (Nov. 6, 1917; appl. Jan. 18, 1917). INSECT GATHERING AND KILLING MACHINE. Fred W. Gravunder, Bloomer, Wis. - This device brushes insects from growing plants such as potato vines and crushes them between rollers.

1,249,071 (Dec. 4, 1917; appl. Feb. 21, 1917). INSECT DESTROYER. Emmanuel C. Grover, Mathis, Tex. - This machine shakes insects from plants into troughs containing insecticidal liquid. Means are also provided for burning sulphur by the flame from oil burners and confining the fumes under a canvas cover.

1,253,176 (Jan. 8, 1918; appl. Aug. 10, 1917). BOLL WEEVIL CATCHER. Thomas C. Hines, Ripley, Miss. - This attachment to a cultivator knocks boll weevils into troughs.

1,254,649 (Jan. 29, 1918; appl. May 15, 1917). BOLL WEEVIL EXTERMINATOR. Lonnie A. Bevis, Roanoke, Ala. - This machine shakes boll weevils from cotton plants into pans from which they pass to rollers between which they are crushed.

1,256,036 (Feb. 12, 1918; appl. Apr. 13, 1917). INSECT DESTROYER. Luther Patton and Henry B. Wallace, Blocton, Ala. - Wallace to Patton. - This horse-drawn machine knocks boll weevils, potato bugs and other insects from plants into trays containing tar.

1,256,394 (Feb. 12, 1918; appl. Dec. 1, 1916). BOLL WEEVIL CATCHER. Jacob T. Timmons, Avalon, Miss. - This device which may be attached to a plow beam knocks boll weevils from plants into pans containing insecticide.

1,257,343 (Feb. 26, 1918; appl. Jan. 10, 1917). BOLL WEEVIL EXTERMINATOR. William E. Harper, Center City, Tex. - This machine brushes boll weevils from cotton plants and blows them into rollers where they are crushed.

1,263,312 (Apr. 16, 1918; appl. Jan. 22, 1917). BOLL WEEVIL DESTROYING MACHINE. Thomas H. Diserens, Dallas, and Frank C. McKay, Celina, Tex. - This machine shakes boll weevils and other insects from plants, gathers them up by suction and delivers them to a grinder and cutter where they are destroyed and then dropped to the ground.

1,264,194 (Apr. 30, 1918; appl. Mar. 1, 1918). EXTERMINATOR. Hubert Longauer, Milwaukee, Wis. - This machine is an improvement on that described in Patent 1,239,799 issued on Sept. 11, 1917, to H. Longauer. It knocks insects from plants, such as potato vines, on to plates where they are crushed and swept away.

1,267,224 (May 21, 1918; appl. July 19, 1916). BOLL WEEVIL CATCHER. Reed R. Hitt, Energy, Tex. - John J. Urquhart, George W. McClellan and Henry B. Johnson, San Saba, Tex. - This machine brushes boll weevils from plants into pans containing kerosene or a mixture of kerosene and water.

1,268,660 (June 4, 1918; appl. Jan. 5, 1918). BOLL WEEVIL DESTROYER. Troy W. Young, Hamilton, Tex. - This attachment to a cultivator knocks boll weevils from plants into trays of burning oil.

1,270,847 (July 2, 1918; appl. Mar. 21, 1918). BOLL WEEVIL CATCHER. Jesse P. Lee, Stockton, Ga. - This machine knocks boll weevils into troughs.

1,271,397 (July 2, 1918; appl. Sept. 14, 1917). BOLL WEEVIL DESTROYER. William J. Walker, Sylvania, Ga. - As this machine is drawn between rows of cotton plants, brushes gather the infested squares and leaves on the ground into the path of a revolving cylinder provided with teeth or prongs which picks up the material and delivers into a receptacle.

1,282,277 (Oct. 22, 1918; appl. Mar. 22, 1916). IMPLEMENT FOR DESTROYING INSECTS. William A. Nall, Lenox, Ala. - Forty-five one-hundredths to Joseph C. Long, Repton, Ala. - As this apparatus is drawn through a field it knocks boll weevils from plants into pans containing oil.

1,284,698 (Nov. 12, 1918; appl. Dec. 6, 1917). BOLL WEEVIL EXTERMINATOR. George W. Johnson, Sardis, Miss. - This machine shakes boll weevils from cotton plants and blows them down into pans containing viscous material to which the weevils will adhere.

1,285,807 (Nov. 26, 1918; appl. Sept. 29, 1917). INSECT CATCHER. Evie Schmitz, Torrance, Miss. - One-half to Thomas S. Schmitz, Torrance, Miss. - This device knocks boll weevils into troughs.

1,289,250 (Dec. 31, 1918; appl. Apr. 18, 1918). INSECT CATCHER. Luther Patton, West Blocton, Ala. - This horse-drawn machine shakes boll weevils from plants into pans. It is an improvement over those described in United States Patents 1,256,036 issued to L. Patton and H. B. Wallace, and 1,241,012 issued to Samuel J. Patton.

1,294,615 (Feb. 18, 1919; appl. Aug. 12, 1918). INSECT TRAP AND DESTROYER. Jewett R. Carlson, West Salem, Wis. - This machine knocks grasshoppers into a trough from which they pass into a chamber and finally onto revolving rollers which crush them and deliver them to a receptacle.

1,303,132 (May 6, 1919; appl. Jan. 27, 1919). MACHINE FOR EXTERMINATING BOLL WEEVILS. Isaac Tubbs, Piggott, Ark. - This machine blows boll weevils from a row of plants into the paths of the wheels where they are crushed.

1,305,493 (June 3, 1919; appl. Nov. 24, 1917; Renewed Apr. 9, 1919). BOLL WEEVIL DESTROYER. John W. Ray, Philadelphia, Miss. - This plow attachment shakes boll weevils from plants into troughs containing tar or oil.

1,306,059 (June 10, 1919; appl. ^{Aug.} 13, 1918). HARROW AND LOCUST-KILLING MACHINE. Juan J. Guridi, Mansavillagra, Florida, Uruguay. - This horse-drawn machine brushes locusts (grasshoppers) into its path and crushes them with rollers.

1,323,016 (Nov. 25, 1919; appl. July 11, 1919). BOLL WEEVIL DESTROYER. Jesse F. Cook, Meridian, Miss. - This hand operated device shakes boll weevils from plants into troughs containing insecticidal liquid.

1,331,946 (Feb. 24, 1920; appl. Oct. 7, 1918). BOLL WEEVIL TRAP. Turen B. Stevenson, McRae, Ga. - This machine is designed to knock boll-weevils from plants into a receiver containing an inflammable fluid (such as coal oil) or other insect destroying means.

1,334,973 (Mar. 30, 1920; appl. Oct. 21, 1919). BOLL WEEVIL CATCHER. John M. Stukes, Hearne, Tex. - This machine, which is mounted on skids, knocks boll weevils from plants into troughs as it is drawn through a field.

1,341,706 (June 1, 1920; appl. Feb. 28, 1918; renewed Apr. 3, 1920). DEVICE FOR DESTROYING BOLL WEEVIL MOTHS. David D. Dailey, Atmore, Ala. - This device consists of a standard which is driven into the ground and which supports shelves on either side. Hay is placed on these shelves. During the night the boll weevil moths [sic] are attracted to the hay and are found concealed in the hay in the morning. The insects are collected in a sack inverted over the standard and are destroyed by dumping them into a pan of crude oil.

1,344,119 (June 22, 1920; appl. Nov. 28, 1919). POTATO BUG TRAPPING MACHINE. James M. Drake, Shawano, Wis. - This machine shakes potato bugs from vines on to a conveyor belt which carries them to rollers which crush them.

1,356,864 (Oct. 26, 1920; appl. Nov. 7, 1919). APPARATUS FOR GATHERING BOLL WEEVILS. George E. Hodges, Statesboro, Ga. - This machine knocks boll weevils into troughs which may contain insecticide.

1,357,905 (Nov. 2, 1920; appl. Jan. 19, 1920). GROUND-MULSHING AND INSECT-DISPLACING DRAG. Oliver H. Rosenberg, Terrell, Tex. - This wooden drag is provided on the under side with pendant spikes about 1 inch long and about 4 inches apart. Springs extending from the drag knock insects from cotton plants into the path of the drag which destroys them.

1,363,026 (Dec. 21, 1920; appl. Sept. 2, 1919). BOLL WEEVIL CATCHER. John H. Walker, Rhine, Ga. - This machine knocks boll weevils into entrapping receptacles.

1,363,998 (Dec. 28, 1920; appl. Sept. 18, 1919). BOLL WEEVIL DEVICE. Leonard F. Reeder and Walter B. Jackson, McKinney, Tex. - This machine brushes boll weevils into a pan containing kerosene or other insecticidal liquid.

1,378,235 (May 17, 1921; appl. July 1, 1919). GRASSHOPPER CATCHER. August Jahn, Omak, Wash. - As the screen is moved through a field it causes grasshoppers striking it to fall into a receptacle. The insects may be fed to chickens or used as fertilizer.

1,380,902 (June 7, 1921; appl. Nov. 10, 1920). BOLL WEEVIL DESTROYER. Cim L. Harrison, Antlers, Okla. - This device consists of 3 rollers connected in the form of a triangle and is adapted to crush boll weevils and their eggs and embed them in the soil.

1,386,502 (Aug. 2, 1921; appl. Dec. 16, 1919). BOLL WEEVIL CATCHER. Reed R. Hitt, Energy, Tex. - Hitt Boll Weevil Machine Co., Energy, Tex. - This machine brushes boll weevils into pans containing kerosene or kerosene and water.

1,396,797 (Nov. 15, 1921; appl. Sept. 27, 1920). PINK BOLL WEEVIL DESTROYER. John M. Webb, Flat, Tex. - This device which is designed to be attached to a plow, carries pans of burning sulphur through a cotton field and the insects that are overcome by the fumes are caught in an insecticidal liquid.

1,402,960 (Jan. 10, 1922; appl. Dec. 24, 1920). INSECT DESTROYER. Otto Rannefeld, Sherwood, Tex. - One-fourth to Robert F. Halbert, San Angelo, Tex. - This machine is designed to straddle a row of plants and to blow boll weevils and other insects from the plants by means of a blast of air into a pan provided with a burner which incinerates the insects. The resultant ashes are discharged through an opening and can be used for fertilizing the ground.

1,409,973 (Mar. 21, 1922; appl. July 29, 1920). BOLL WEEVIL TRAP. Joel A. Rylander, Nixon, Tex. - This machine shakes boll weevils from plants into troughs containing gasoline or other insecticide.

1,413,808 (Apr. 25, 1922; appl. Jan. 17, 1921). BOLL WEEVIL COLLECTOR. David R. Stubbs, Cuero, Tex. - This attachment for a cultivator knocks boll weevils from the plants into troughs containing oil and water.

1,414,068 (Apr. 25, 1922; appl. June 10, 1921). INSECT CATCHER. Arthur Brigden, Birmingham, Ala. - As this two-wheeled machine is pushed through the field it brushes boll weevils from the plants by means of curtains and catches them in troughs containing a suitable liquid.

1,414,069 (Apr. 25, 1922; appl. July 13, 1921). INSECT CATCHER. Arthur Brigden, Birmingham, Ala. - This machine shakes insects from plants into troughs.

1,424,265 (Aug. 1, 1922; appl. Oct. 19, 1920). BOLL WEEVIL CATCHER. William Stanalan, Garrison, Tex. - This attachment for a cultivator sweeps boll weevils from the plants into a pan containing an insecticidal liquid.

1,446,126 (Feb. 20, 1923; appl. Apr. 25, 1922). INSECT CATCHER. Luther Patton, Birmingham, Ala. - This machine shakes insects from plants into collecting troughs. It is an improvement over the one described in United States patent 1,289,250 issued December 31, 1918 to L. Patton.

1,446,871 (Feb. 27, 1923; appl. Apr. 13, 1922). BOLL WEEVIL CATCHER. Jephtha E. Brawner, Kingsbury, Tex. - This machine shakes boll weevils from plants into a collecting pan.

1,447,375 (Mar. 6, 1923; appl. Feb. 23, 1922). INSECT CATCHER. Zephineah Burroughs, Watertown, S. Dak. - This insect catcher may readily be attached to a cultivator, and is especially designed for use against potato beetles. The insects are knocked from the plants and are caught in troughs containing water and kerosene.

1,448,447 (Mar. 13, 1923; appl. July 22, 1922). INSECT CATCHER. Harvey D. Johnson, Cedar Hill, Tex. - This machine brushes boll weevils from plants into troughs containing a poisonous solution.

1,450,382 (Apr. 3, 1923; appl. June 20, 1921).. BOLL WEEVIL TRAP. Lester L. Moore, Winder, Ga. - This hand operated device knocks boll weevils from plants into troughs containing liquid poison.

1,450,538 (Apr. 3, 1923; appl. July 18, 1922). INSECT AND WORM CATCHER. Louis E. Baker, Blum, Tex. - One-fourth to A. J. Martin, one-fourth to J. H. Brock, and one-fourth to A. E. Harroun, Blum, Tex. - This machine shakes boll weevils from plants into pans containing water and kerosene or other suitable oil.

1,452,226 (Apr. 17, 1923; appl. Nov. 21, 1922). BOLL WEEVIL DESTROYER. Madison A. Spencer, Yonkers, N.Y. - One-half to Bert E. Nussbaum, Muskogee, Okla. - This machine shakes boll weevils from plants and crushes them between rollers.

1,458,538 (June 12, 1923; appl. June 15, 1922). BOLL WEEVIL TRAP. Lester L. Moore, Winder, Ga. - This portable device dislodges insects from plants and catches them in pans containing poison liquid.

1,458,799 (June 12, 1923; appl. Aug. 12, 1922). BOLL WEEVIL MACHINE. Arthur Brigden, Birmingham, Ala. - This machine is designed to dislodge boll weevils from plants by agitating the plants. The insects are caught in troughs filled with an insect destroying liquid.

1,458,800 (June 12, 1923; appl. Aug. 29, 1922). BOLL WEEVIL MACHINE. Arthur Brigden, Birmingham, Ala. - Improvements in the machine described in U. S. patent no. 1,458,799 are described.

1,458,857 (June 12, 1923; appl. Oct. 14, 1922). BOLL WEEVIL EXTERMINATOR. Charles R. Scott, Bells, Tex. - This machine shakes boll weevils from plants into a collecting pan.

1,459,626 (June 19, 1923; appl. Oct. 16, 1922). BOLL WEEVIL EXTERMINATOR. James A. Harden, Ada, Okla. - This machine is designed to brush insects from cotton plants and catch them in pans.

1,466,106 (Aug. 28, 1923; appl. Sept. 4, 1920). BOLL WEEVIL CATCHER. Lemuel L. Allen, Luling, Tex. - This machine brushes boll weevils into collecting receptacles.

1,467,494 (Sept. 11, 1923; appl. May 24, 1922). INSECT CATCHER. Luther Patton, Birmingham, Ala. - This machine knocks insects from plants into troughs. It is an improvement over the one described in United States Patent 1,289,250 issued December 31, 1918, to L. Patton.

1,467,495 (Sept. 11, 1923; appl. July 8, 1922). INSECT CATCHER. Luther Patton, Birmingham, Ala. - A distinctive feature of this invention is the utilization of a spring-pressed hollow agitating finger through which a blast of air, whether or not serving as a bearer of a poison element, is directed in jets against the limbs and all parts of the plant under treatment to more effectively dislodge the insects therefrom and cause them to fall into and to be caught in the collecting troughs.

1,468,585 (Sept. 18, 1923; appl. Dec. 20, 1922). INSECT CATCHING ATTACHMENT FOR CULTIVATORS. James B. Vaughan, Lacy Springs, and John Terrell, Taylorsville, Ala. - This attachment for a cultivator knocks boll weevils from plants into pans containing kerosene or other exterminators.

1,470,945 (Oct. 16, 1923; appl. Dec. 6, 1922). BOLL WEEVIL EXTERMINATOR. Robert H. Stevens, Near Newalla, Okla. - This machine is designed to knock boll weevils from plants into a pan where they may be destroyed from time to time.

1,472,544 (Oct. 30, 1923; appl. May 9, 1923). BOLL WEEVIL EXTERMINATOR. Charles W. Brooks, Huntsville, Ala. - One-half to Anna W. Cobb, Huntsville, Ala. - This machine brushes boll weevils from plants with hanging chains into pans containing poisonous fluid.

1,475,413 (Nov. 27, 1923; appl. Nov. 8, 1922). BOLL WEEVIL DESTROYER. Jacob M. Shobert, Noble, Okla. - This machine is designed to shake boll weevils from the plants and catch them in pans containing gasoline or other material which will destroy the insects.

1,475,467 (Nov. 27, 1923; appl. Sept. 23, 1922). BOLL WEEVIL DESTROYER. George W. Wiseley, Holdenville, Okla. - This device may be readily attached to any wheeled cultivator and is designed to knock boll weevils and other insects from the plants and catch them in pans containing oil or other material which will destroy insects.

1,479,954 (Jan. 8, 1924; appl. Feb. 24, 1923). BOLL WEEVIL MACHINE. Arthur Bridgen, Birmingham, Ala. - A machine designed to knock boll weevils from growing cotton into pans is described. The machine includes a wheel-supported frame adapted to straddle a row of cotton plants, and is provided with means for attaching a cultivator whereby the plants may be cultivated and the weevils removed therefrom at a single operation.

1,482,006 (Jan. 29, 1924; appl. July 13, 1923). INSECT EXTERMINATING MACHINE. William J. Gourley, Weatherford, Tex. - This machine shakes boll weevils from growing plants into a collecting receptacle.

1,482,023 (Jan. 29, 1924; appl. July 31, 1923). BOLL WEEVIL MACHINE. William B. Mann, Sr., Marianna, Ark. - This cultivator attachment knocks boll weevils into pans containing an insecticidal liquid.

1,482,785 (Feb. 5, 1924; appl. July 5, 1922). COTTON-BOLL-WEEVIL EXTERMINATOR. Charles R. Coolidge, Helena, Ark. - A cotton boll weevil exterminator consists of a wheeled frame provided with means for shaking and blowing the weevils from the plants and collecting them in troughs.

1,487,357 (Mar. 18, 1924; appl. Jan. 25, 1923). BOLL WEEVIL CATCHING MACHINE. Sam Pavillard, Decatur, Tex. - This machine shakes boll weevils from plants into collecting pans from which the insects are gathered and burned.

1,488,140 (Mar. 25, 1924; appl. June 22, 1923). BOLL WEEVIL EXTERMINATING MACHINE. Newton L. Abercrombie, Meridian, Miss. - This machine blows the insects off the cotton plants by blasts of air and then crushes them through rolls.

1,489,214 (Apr. 1, 1924; appl. Jan. 18, 1923). BOLL WEEVIL CATCHER. Ross Hickman, Oklaunion, Tex. - Boll weevils are knocked from the cotton plants and sucked up from the ground into a receptacle as the machine is propelled on a path parallel with the rows of plants.

1,489,292 (Apr. 8, 1924; appl. Feb. 1, 1923). BOLL WEEVIL EXTERMINATOR. James M. Wiley, Hollywood, Tenn. - This device may be operated by hand or may readily be attached to a horse-drawn machine, such as an ordinary cultivator, and is designed to shake boll weevils from the plants into pans.

1,491,845 (Apr. 29, 1924; appl. Sept. 30, 1922). INSECT TRAP. Cornelius C. Christal, Gable, S. C. - This machine knocks boll weevils from plants into pans containing liquid or powdered poison.

1,492,727 (May 6, 1924; appl. Aug. 31, 1923). INSECT DESTROYER. John L. Hope, Oakfield, Ga. - This attachment for plows or cultivators knocks boll weevils into a pan containing insecticidal liquid.

1,492,858 (May 6, 1924; appl. Apr. 21, 1923). BOLL WEEVIL CATCHER. John B. Muse, Cameron, N. C. - One-third to Robert G. Rosser, Vass, N.C., and one-third to Angus B. Cameron, Carthage, N. C. - This is a horse-drawn machine provided with means for shaking boll weevils from cotton plants and depositing the insects upon basket devices whereby they can be destroyed.

1,493,830 (May 13, 1924; appl. Apr. 16, 1923). BOLL WEEVIL RAKE OR COMB. Homer Vining, Hawkinsville, Ga. - This attachment for plows and cultivators knocks boll weevils into pans containing an insecticidal liquid.

1,495,520 (May 27, 1924; appl. Aug. 15, 1923). BOLL WEEVIL EXTERMINATOR. Andrew J. Jones, Garner, Tex. - This machine knocks boll weevils into pans containing kerosene.

1,496,386 (June 3, 1924; appl. Mar. 1, 1923). BOLL WEEVIL TRAP. Rufus A. Sligh, Columbia, S. C. - This machine knocks boll weevils into receptacles. It also distributes poison to the plant and to the receptacles containing insects by means of wipers.

1,498,793 (June 24, 1924; appl. May 16, 1923). INSECT DESTROYER. Charles L. Harris, Lawton, Okla. - Boll weevils are blown from plants by means of a blast of air and are collected and destroyed during the passage of the machine along the plant rows.

1,500,518 (July 8, 1924; appl. Nov. 6, 1923). INSECT TRAP. Frank E. Mullen, Lexington, Miss. - This one-wheeled device consists of a hopper and a receptacle into which the insects are brushed by hand as the apparatus is pushed along a row of plants.

1,500,538 (July 8, 1924; appl. Oct. 4, 1922). BOLL WEEVIL CATCHER. Frank Wilmoth, Midlothian, Tex. - Standard Manufacturing Co., Dallas, Tex. - This cultivator attachment knocks boll weevils from plants into a receptacle containing an insecticide such as kerosene.

1,505,886 (Aug. 19, 1924; appl. Feb. 28, 1923). INSECT DESTROYER. Jessie G. Haley, Wellston, Okla. - This machine is designed to brush boll weevils from plants and crush them between rollers.

1,507,457 (Sept. 2, 1924; appl. Feb. 14, 1922). BOLL WEEVIL MACHINE. Arthur Brigden, Birmingham, Ala. - This machine shakes boll-weevils from plants into troughs containing poisonous liquid.

1,514,372 (Nov. 4, 1924; appl. Mar. 17, 1922). BOLL WEEVIL DESTROYER. Sam Colson, Elberton, Ga. - This machine brushes boll weevils from plants into troughs and also applies powdered insecticide to the plants.

1,518,305 (Dec. 9, 1924; appl. Apr. 12, 1923). BOLL WEEVIL DESTROYER. Havanar V. Carmans, Sherman, Tex. - One-eighth to Thomas A. Petty, Bristow, Okla.; one-fourth to Lee G. Purkey, and one-fourth to Clarence C. Purkey, of Sherman, Tex. - This machine brushes boll weevils and other insects from plants and gathers them together on the ground where they are sprayed with an insecticidal liquid. The plants are also sprayed as they are brushed.

1,519,922 (Dec. 16, 1924; appl. Mar. 18, 1922). POTATO BUG DESTROYER. Clarence A. Moran, Bronson, Minn. - This device is designed to brush off potato bugs and other insects from plants and to catch them in pans, so that they may be subsequently destroyed by fire or by means of a suitable insecticide.

1,521,767 (Jan. 6, 1925; appl. June 15, 1922). INSECT DESTROYING MACHINE. Robert Hawkins, Windthorst, Saskatchewan, Canada. - This machine, as it is driven over standing crops, disturbs grasshoppers and other insects so that they fly upward against a screen from which they fall between rollers which crush them.

1,523,967 (Jan. 20, 1925; appl. Feb. 6, 1924). INSECT DESTROYING MACHINE. David H. Hunter, Lagrange, Ga. - This machine knocks insects from plants into a furnace where they are consumed. Simultaneously a sprayer arrangement at the rear of the machine is brought into action for spraying plants.

1,533,276 (Apr. 14, 1925; appl. Aug. 19, 1924). BOLL WEEVIL MACHINE. Jose M. Sanchez, Zapata, Tex. - This machine knocks boll weevils from cotton plants into receptacles containing an insecticide.

1,533,851 (Apr. 14, 1925; appl. July 23, 1923). BOLL WEEVIL DESTROYER. James S. Glover, Elbridge, Tenn. - This machine collects boll weevils from plants, crushes them between rolls and deposits them on the ground thereby utilizing them as fertilizer.

1,537,570 (May 12, 1925; appl. June 22, 1923). INSECT EXTERMINATOR. Daniel H. Woodward and Julian S. Chambers, Atlanta, Ga. - This machine knocks boll weevils from plants into troughs and at the same time sprays the plants and the ground around them with liquid or powdered insecticide.

1,538,100 (May 19, 1925; appl. Sept. 26, 1924). BOLL WEEVIL CATCHER. John H. Dykes, Donaldsonville, Ga. - This machine knocks boll weevils from plants into pans containing kerosene.

1,553,487 (Sept. 15, 1925; appl. Aug. 11, 1923). BOLL WEEVIL CATCHER. James W. Thompson, Harlingen, Tex. - This machine is drawn over two rows of cotton plants and shakes boll weevils from the plants into a pan.

1,563,668 (Dec. 1, 1925; appl. Nov. 26, 1924). GRASSHOPPER EXTERMINATOR. Virgil S. Smith and Walter E. Clarke, Yale, Okla. - This device, which may be attached to an automobile, scoops grasshoppers into a receptacle where they are crushed between rollers.

1,567,969 (Dec. 29, 1925; appl. Apr. 15, 1925). INSECT EXTERMINATOR. August Marek, Yoakum, Tex. - This machine is adapted to be pulled over a row of cotton plants and to blow hot air against the plants to destroy the insects.

1,579,973 (Apr. 6, 1926; appl. June 14, 1924). BOLL WEEVIL CATCHER. Edgar H. Trick, San Antonio, Tex. - One-half to Rudolph A. Rehberg, San Antonio, Tex. - This machine is drawn along rows of cotton plants and shakes boll weevils from the plants into a pan.

1,582,466 (Apr. 27, 1926; appl. Oct. 2, 1923). INSECT DESTROYER. William W. Harwood, Grannis, Ark., and George Harwood, Dickinson, Tex. - This machine brushes boll weevils from plants into pans.

1,602,849 (Oct. 12, 1926; appl. Aug. 2, 1924). BOLL WEEVIL MACHINE. Thomas T. Harris, Edenton, N. C. - This machine blows boll weevils from plants into pans containing crude oil or other liquid.

1,624,773 (Apr. 12, 1927; appl. Nov. 14, 1923). BOLL WEEVIL CATCHER. Ross Weaver, Forrest City, Ark. - This machine knocks boll weevils from plants into troughs containing insecticidal liquid.

1,625,757 (Apr. 19, 1927; appl. Nov. 18, 1925). SUPPORTING DEVICE. William H. Woods, Gable, S. C. - This device attaches a trap known as the "red bird trap" to a cultivator. The trap collects boll weevils as the cultivator is being used.

1,627,298 (May 3, 1927; appl. Mar. 1, 1926). ATTACHMENT FOR CULTIVATORS. James B. Vaughan, Lacy Springs, and John Terrell, Taylorsville, Ala. - This machine knocks boll weevils from plants by means of hanging chains into troughs containing poisonous liquid. It is an improvement over the one described in United States patent 1,468,585 dated September 18, 1923, and granted to J. B. Vaughan and J. Terrell.

1,633,099 (June 21, 1927; appl. Mar. 26, 1925; in Denmark Aug. 5, 1924). MACHINE ADAPTED TO CATCH AND DESTROY BUGS AND SIMILAR NOXIOUS VERMIN ON PLANTS AND BUSHES. Carl Heilmann, Skelskor, Denmark. - This machine shakes insects from plants into collecting gutters containing oil, petroleum or other adhesive or insect killing fluid.

1,656,698 (Jan. 17, 1928; appl. Apr. 14, 1927). ELECTRIC FLY-TRAP. William Duquaine and Henry M. Peterson, Marinette, Wis. - Flies attracted to a plate by a smear of fly attracting material are blown by a blast of air from an electric fan into a removable cage.

1,665,960 (Apr. 10, 1928; appl. Sept. 15, 1926). BOLL WEEVIL DESTROYER. Carl A. Heilmann, Skjelskor, Denmark. - This machine shakes boll weevils from plants into pans containing insecticidal liquid.

1,684,040 (Sept. 11, 1928; appl. Oct. 8, 1927). WEEVIL DESTROYER. Zolectus T. Mann, Caviness, Tex. - This machine knocks boll weevils from plants to the ground where they are brushed into rows and crushed by spring-pressed crushers. The device may be attached to the beam of a cultivator.

1,724,797 (Aug. 13, 1929; appl. Apr. 13, 1928). INSECT TRAP. Albert E. Gibson, Electra, Tex. - This machine shakes boll weevils from plants into a receptacle containing insecticide.

1,759,693 (May 20, 1930; appl. Oct. 13, 1928). INSECT DESTROYING DEVICE. Loomis M. Goodwin, Raleigh, N. C. - This attachment for cultivators brushes boll weevils from plants into a pan of kerosene.

1,823,196 (Sept. 15, 1931; appl. Jan. 23, 1929). BOLL WEEVIL EXTERMINATOR. Eligy P. Griffith, Gainesville, Tex. - This machine knocks boll weevils from plants into pans containing oil or other fluid. Electric lights are placed above the pans to attract insects at night.

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